

We claim:

1. A resuscitation and alert system comprising:

a resuscitation device comprising an automatic chest compression device;

5 sensing means for determining when the resuscitation device is in use, said sensing means capable of generating a signal indicating that the resuscitation device is in use and transmitting said signal to other components of the system;

10 wherein the sensing means comprises a sensor which senses when the resuscitation device has been activated, thereby treating the activated condition of the resuscitation device as an indication that the resuscitation device is in use;

15 communicating means for communicating with an emergency medical system; and

a processor, said processor capable of receiving input from the sensing means and controlling the communicating means to initiate communication with the emergency medical system whenever the input from the sensing means indicates that the device is in use;

20 a means for measuring the cardiac electrical activity of a patient, said means for measuring capable of generating an EKG signal corresponding to the cardiac electrical activity, said means for measuring capable of transmitting said EKG signal to other components of the system;

wherein the processor is programmed to control the communicating means to communicate the EKG signal to the emergency medical personnel when the means for measuring measures the cardiac electrical activity;

- 5 a defibrillator operably connected to the resuscitation device, wherein the defibrillator is inoperable unless activated by the processor;

10 wherein the communication means is capable of receiving an activation signal transmitted by the emergency medical personnel and conveying the activation signal to the processor; and

wherein the processor is programmed to make the defibrillator operable when the processor receives the activation signal.

- 15 2. The resuscitation and alert system of claim 1 wherein:

the processor is programmed to cause the defibrillator to deliver a therapeutic shock to the patient when the processor receives an activation signal.

3. The resuscitation and alert system of claim 1 wherein:

20 the processor is programmed to analyze the EKG and determine the need for therapeutic shock, and cause the defibrillator to deliver a therapeutic shock to the patient when the processor determines the need for therapeutic shock.

- 25 4. The resuscitation and alert system of claim 1 wherein:

the communication means is capable of allowing communication between a rescuer and the emergency medical

personnel, whereby the rescuer may operate the defibrillator to deliver a therapeutic shock to the patient when instructed by the emergency medical personnel.

5 5. A resuscitation and alert system comprising:

a resuscitation device comprising an automatic chest compression device;

10 sensing means for determining when the resuscitation device is in use, said sensing means capable of generating a signal indicating that the resuscitation device is in use and transmitting said signal to other components of the system;

15 wherein the sensing means comprises a sensor which senses when the resuscitation device has been activated, thereby treating the activated condition of the resuscitation device as an indication that the resuscitation device is in use;

communicating means for communicating with an emergency medical system; and

20 a processor, said processor capable of receiving input from the sensing means and controlling the communicating means to initiate communication with the emergency medical system whenever the input from the sensing means indicates that the device is in use;

25 a means for measuring a biological parameter of a patient, said means for measuring capable of generating a parameter signal corresponding to the biological parameter, said means for measuring capable of

transmitting the parameter signal to other components of the system;

wherein the processor is programmed to control the communicating means to communicate the parameter signal to the emergency medical personnel when the means for measuring measures the biological parameter;

a means for delivering a drug to the patient, said means for delivering operably connected to the resuscitation device, wherein the means for delivering is inoperable unless activated by the processor;

wherein the communication means is capable of receiving an activation signal transmitted by the emergency medical personnel and conveying the activation signal to the processor; and

wherein the processor is programmed to make the means for delivering a drug operable when the processor receives the activation signal.

6. The resuscitation and alert system of claim 5 wherein:

the processor is programmed to cause the means for delivering a drug to deliver a drug to the patient when the processor receives an activation signal.

7. The resuscitation and alert system of claim 5 wherein:

the processor is programmed to analyze the parameter signal and determine the need for a drug, and cause the means for delivering a drug to deliver a drug to the patient when the processor determines the need for a drug.

8. The resuscitation and alert system of claim 5 wherein:

the communication means is capable of allowing communication between a rescuer and the emergency medical personnel, whereby the rescuer may operate the means for delivering a drug to deliver a drug to the patient when instructed by the emergency medical personnel.

9. The resuscitation and alert system of claim 5 wherein:

the biological parameter is selected from the group consisting of the EKG of a patient, the end-tidal carbon dioxide of the patient, the pulse of the patient, the blood pressure of the patient and the blood oxygen level of the patient.

10. A method of treating a patient suffering from cardiac arrest, said method comprising the steps of:

providing a resuscitation system, said system comprising:

an automatic chest compression device;

a means for communicating operably connected to the other components of the resuscitation system, said means for communicating operable to communicate with emergency medical personnel;

a processor operably connected to the other components of the resuscitation system and capable of controlling at least one of the other components of the system;

a means for sensing when the resuscitation device is in use, said means for sensing capable of sending a use signal to the means for communicating, said use signal indicating when the device is in use;

a means for measuring the cardiac electrical activity of the patient, said means for measuring operably connected to at least one other component of the resuscitation system and capable of generating an EKG signal corresponding to the cardiac electrical activity of the patient; and

a defibrillator operably connected to the processor and to the means for communicating, said defibrillator inoperable unless activated by the processor;

operably connecting the resuscitation system to the patient and initiating chest compressions, wherein the processor controls the means for communicating to initiate communication with emergency medical personnel when the resuscitation device is activated;

generating the EKG signal and communicating the EKG signal to the emergency medical personnel; and

transmitting an activation signal to the processor, said activation signal transmitted by the emergency medical personnel, wherein the processor activates the defibrillator upon receiving the activation signal.

11. The method of claim 10 comprising the further step of:

controlling the defibrillator with the processor in order to deliver a therapeutic shock to the patient upon receiving an activation signal.

12. The method of claim 10 comprising the further step of:

analyzing the EKG signal and determining the need for a
delivering a therapeutic shock to the patient, said step
of analyzing performed by the processor; and

delivering a therapeutic shock to the patient when the
processor determines the need for the therapeutic shock,
said step of delivering a therapeutic shock performed by
the defibrillator and initiated by the processor.

13. The method of claim 10 comprising the further steps of:

initiating communication between a rescuer and the
emergency medical personnel;

instructing the rescuer to deliver a therapeutic shock to
the patient, said step of instructing performed by the
emergency medical personnel;

wherein the rescuer operates the defibrillator to deliver
the therapeutic shock to the patient according to the
instructions provided by the emergency medical personnel.

14. A method of treating a patient suffering from cardiac
arrest, said method comprising the steps of:

providing a resuscitation system, said system comprising:

an automatic chest compression device;

a means for communicating operably connected to the
other components of the resuscitation system, said
means for communicating operable to communicate with
emergency medical personnel;

a processor operably connected to the other components
of the resuscitation system and capable of

controlling at least one of the other components of the system;

a means for sensing when the resuscitation device is in use, said means for sensing capable of sending a use signal to the means for communicating, said use signal indicating when the device is in use;

a means for measuring a biological parameter of the patient, said means for measuring operably connected to at least one other component of the resuscitation system and capable of generating a parameter signal corresponding to the biological parameter of the patient; and

a means for delivering a drug to the patient, said means for delivering operably connected to the processor and to the means for communicating, said means for delivering inoperable unless activated by the processor;

operably connecting the resuscitation system to the patient and initiating chest compressions, wherein the processor controls the means for communicating to initiate communication with emergency medical personnel when the resuscitation device is activated;

generating the parameter signal and communicating the parameter signal to the emergency medical personnel; and

transmitting an activation signal to the processor, said activation signal transmitted by the emergency medical personnel, wherein the processor activates the means for delivering a drug upon receiving the activation signal.

15. The method of claim 14 comprising the further step of:

controlling the means for delivering a drug with the processor in order to deliver a drug to the patient upon receiving an activation signal.

5 16. The method of claim 14 comprising the further step of:

analyzing the parameter signal and determining the need for a delivering a drug to the patient, said step of analyzing performed by the processor; and

10 delivering a drug to the patient when the processor determines the need for the drug, said step of delivering a drug performed by the means for delivering a drug and initiated by the processor.

17. The method of claim 14 comprising the further steps of:

15 initiating communication between a rescuer and the emergency medical personnel;

instructing the rescuer to deliver a drug to the patient, said step of instructing performed by the emergency medical personnel;

20 wherein the rescuer operates the means for delivering to deliver a drug to the patient according to the instructions provided by the emergency medical personnel.

18. The method of claim 14 wherein the step of generating the parameter signal comprises generating a parameter signal selected from the group consisting of the EKG of a patient, the end-tidal carbon dioxide of the patient, the pulse of the patient, the blood pressure of the patient and the blood oxygen level of the patient.